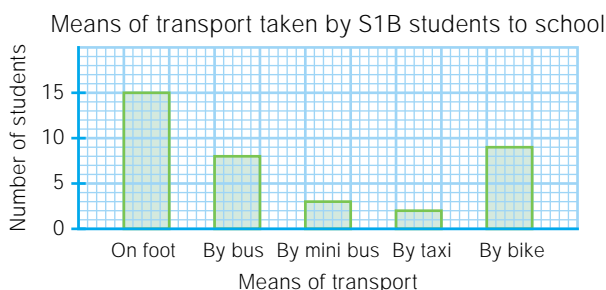
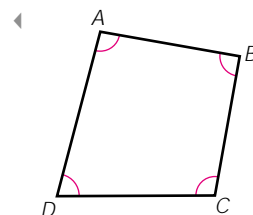
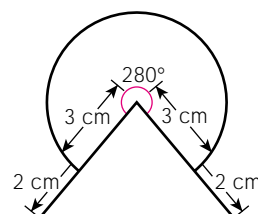


Conventional Question

- Evaluate the following.
 - $0 - [12 + (-3)]$
 - $(-12) \div (+\frac{1}{3}) \times (-\frac{1}{4})$
- If $x = 2$, $y = 3$ and $z = 5$, find the values of the following expressions.
 - $4x - 2y$
 - $(7x + 6y)(4y - 5z)$
- Measure each interior angle of quadrilateral $ABCD$ as shown with a protractor and arrange the angles in ascending order of size.
- A company's share price dropped from \$32 per share to \$18 per share. Find the percentage decrease in the share price.
- The following bar chart shows the means of transport taken by S1B students to school.



- How many S1B students go to school by bus?
 - Which is the most popular means of transport with the S1B students to school?
 - Which is the least popular means of transport with the S1B students to school?
 - How many students are there in S1B?
- Evaluate the following.
 - $(-8) - (+12)(-11) - (+7)(-6)$
 - $[(-19) - (-3)] \div (-\frac{4}{5}) - 10$
 - Draw the figure as shown in actual size.



- The figure shows the *directory* of a Urban Council Building.
 - If '0' represents the *lobby* (G/F) and '-1' represents basement B1, express the third floor (3/F) and the basement B3 in directed numbers.
 - Mr. Kwok parks his car in the carpark and then takes a lift to go 7 floors up to the library. On which floor is his car parked?
 - After visiting the library, Mr. Kwok takes a lift to go 3 floors down to the food court. On which floor is the food court located?

5/F	Library
4/F	
3/F	Study Room
2/F	
1/F	
G/F	Lobby
B1	Carpark
B2	Carpark
B3	Carpark

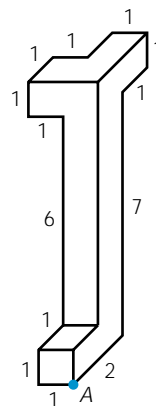
directory 指南 lobby 大堂

9. It is known that the smaller number of two consecutive numbers is a where $a \neq 0$. Express the following in terms of a .
- The larger number.
 - The sum of the two numbers.
 - The product of the two numbers.
 - The result of dividing the larger number by the smaller number.
 - The square of the sum of the two numbers.
 - The sum of the square of the smaller number and the larger number.

10. The stem-and-leaf diagram shows the heights of girls in S1B.
- How many girls are there in S1B?
 - Which stem do most of the heights fall into?
 - What is the difference in height between the shortest and the tallest girl?
 - How many girls are taller than 142 cm?

Stem (10 cm)	Leaves (1 cm)
13	5 6 6 7 7 9
14	0 1 3 6 9
15	0 2 4
16	0 1

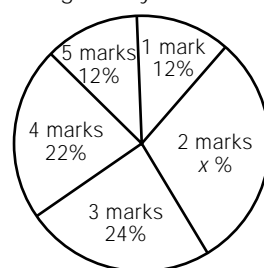
11. Treat point A as the lowest point of the given solid, draw the solid on an isometric grid. (The numbers in the figure are lengths of sides.)



12. (a) Find the n th term of the sequence
 $4 \times 1 + 7$, $4 \times 2 + 7$, $4 \times 3 + 7$, $4 \times 4 + 7$, ...
 (b) If the n th term of the sequence is 283, find the value of n .
13. It is known that a square number can be expressed as the sum of consecutive odd numbers, e.g. $25 = 1 + 3 + 5 + 7 + 9$.
- Rewrite 49 and 64 as the sums of consecutive odd numbers.
 - According to the above method,
 - find the sum of the first 10 consecutive odd numbers.
 - find the value of $1 + 3 + 5 + \dots + 29$.

14. The pie chart shows the scores given by 50 customers for Tai Tai Fast Food Shop. (Full marks: 5)
- Find the value of x .
 - Which score do most customers give? How many customers are there?
 - How many fewer customers are giving 4 marks than 3 marks?

Scores given by 50 customers



15. There were 3 150 candidates passing an examination, which represented 35% of all candidates.
- Find the number of candidates participating in the examination.
 - It was known that the percentage of female candidates was 8% more than that of male candidates. Find the number of male candidates participating in the examination.
 - If there were only 40% of female candidates passing the examination,
 - how many female candidates passed the examination?
 - how many male candidates passed the examination?
16. There are two pipes A and B connected to a water tank. To completely fill the water tank with water, pipe A alone takes 9 hours and pipe B alone takes 12 hours. It is known that the capacity of the water tank is $x \text{ m}^3$.
- Express the respective amounts of water filled by pipe A and pipe B each hour in terms of x .
 - If pipe A and pipe B are used to fill the water tank with water at the same time, there will be 70 m^3 of water in the tank after two hours. Find the capacity of the water tank.

17. The following shows the marked prices and the discounts of a TV set and a washing machine in store A and store B respectively.

Store A			Store B		
	Marked price	Discount		Marked price	Discount
TV set	\$4 500	15%	TV set	\$4 400	10%
Washing machine	\$2 500	15%	Washing machine	\$2 600	20%

- (a) Find the total selling price of the TV set and washing machine at store A.
 (b) Find the total selling price of the TV set and washing machine at store B.
 (c) Suggest a method to buy the TV set and washing machine at the lowest price and find the amount required.
18. A local mobile phone company provides the following two SMS service plans.

	Basic Monthly Fee	Fee for each additional SMS
Plan A	\$88 (including first 450 SMS per month)	\$0.2
Plan B	\$20 (including first 70 SMS per month)	\$0.3

- (a) It is known that Frankin and Stephen are using plan A and plan B respectively, and the number of SMS sent by each of them last month exceeds the corresponding limit. Let x and y be the number of SMS sent by Frankin and Stephen last month respectively.
 (i) Express the SMS service fee payable by Frankin and Stephen each last month.
 (ii) If Frankin and Stephen sent 465 and 308 SMS last month respectively, how much would be the fee payable by each of them last month?
 (b) Starting from this month, sending SMS among customers of this mobile phone company is free of charge, and this will not be counted as SMS included in the service plan. This month, Frankin and Stephen sent the same number of SMS to each other, and the total number of SMS sent by each of them is the same as that in last month, and thus their fees payable for this month are the same as last month's. How many SMS did they send to each other this month?

MC Question

19. $150 \div (1 - 40\%) =$

- A. 60.
 B. 90.
 C. 250.
 D. 375.



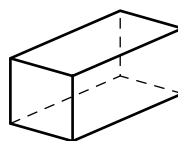
20. It is given that $x = \frac{4b^2}{(2a)^2} \cdot \frac{a^2}{b}$. If $a = 12$ and $b = 16$, find the value of x .

- A. 1
 B. 4
 C. 12
 D. 16

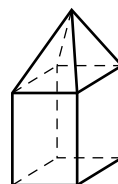


21. Which of the following solids is not a polyhedron?

A.



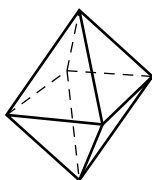
B.



C.



D.


☐

22. Which of following expressions has a positive value?

- A. $(-714) + (+714)$
 B. $(-960) - (-883)$
 C. $(-697) - (+917)$
 D. $(-762) - (-951)$

☐

23. For three consecutive numbers, the sum of three times the largest number and two times the smallest number is 81. Find the number in the middle.

- A. 14
 B. 16
 C. 17
 D. 18

☐

24. Compared to two weeks ago, Cathy lost 3 kg last week. Compared to last week, Cathy gained 1 kg this week. Find the change in Cathy's weight in these two weeks.

- A. +4 kg
 B. +2 kg
 C. -2 kg
 D. -4 kg

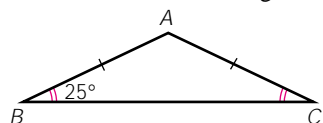
☐

25. How many square numbers are there between 10 and 50?

- A. 2
 B. 3
 C. 4
 D. 5

☐

26. Which of the following are true?



- I. ABC is an acute-angled triangle.
 II. ABC is an obtuse-angled triangle.
 III. ABC is an isosceles triangle.
 IV. ABC is an equilateral triangle.

- A. I and III
 B. I and IV only
 C. II and III only
 D. II and IV only

☐

27. Brian bought a box of model and an air soft gun at \$300 and \$500 respectively. He then sold them at a profit of 15% and 11% respectively. Find the overall profit percentage.

- A. 12.5%
 B. 13%
 C. 13.5%
 D. 26%

☐

28. Patrick has $(3x - 2)$ apples and Anne has $2x$ apples. If Patrick gives 3 apples to Anne, they will have the same number of apples. Which of the following equations can express the above relation correctly?

- A. $3x - 2 - 3 = 2x + 3$
 B. $3x - 2 = 2x$
 C. $3x - 2 + 3 = 2x$
 D. $2x - 3x - 2 + 3 = 0$

☐

The following frequency distribution table shows the ages of the photography club members in a school. Answer the questions 29 – 30.

Age	Frequency
13	5
14	12
15	8
16	4
17	1
> 17	2

29. How many members are there in the photography club?

- A. 45
 B. 42
 C. 32
 D. 20

☐

30. How many members are at least 16 years old?

- A. 3
 B. 7
 C. 25
 D. 29

☐